

13/5/1 (Item 1 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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014228158 \*\*Image available\*\*  
WPI Acc No: 2002-048856/200206  
Related WPI Acc No: 2001-570797  
XRPX Acc No: N02-036172

Data delivery method for legacy computer system used in e-commerce application, involves modifying applications of legacy system and running modified applications so that data is output in extensive mark-up language format

Patent Assignee: ELECTRONIC DATA SYSTEMS CORP (ELDA-N)

Inventor: BALLANTYNE A M ; HINES L M ; SMITH M K

Number of Countries: 101 Number of Patents: 008

Patent Family:

| Patent No      | Kind | Date     | Applicat No    | Kind | Date     | Week     |
|----------------|------|----------|----------------|------|----------|----------|
| US 20010044811 | A1   | 20011122 | US 2000522277  | A    | 20000309 | 200206 B |
|                |      |          | US 2001840727  | A    | 20010423 |          |
| WO 200286706   | A1   | 20021031 | WO 2002US12617 | A    | 20020423 | 200272   |
| EP 1381945     | A1   | 20040121 | EP 2002726784  | A    | 20020423 | 200410   |
|                |      |          | WO 2002US12617 | A    | 20020423 |          |
| AU 2002257192  | A1   | 20021105 | AU 2002257192  | A    | 20020423 | 200433   |
| MX 2003009712  | A1   | 20040201 | WO 2002US12617 | A    | 20020423 | 200473   |
|                |      |          | MX 20039712    | A    | 20031023 |          |
| ZA 200308238   | A    | 20041124 | ZA 20038238    | A    | 20031022 | 200481   |
| BR 200209092   | A    | 20050209 | BR 20029092    | A    | 20020423 | 200516   |
|                |      |          | WO 2002US12617 | A    | 20020423 |          |
| IN 200301727   | P1   | 20051014 | WO 2002US12617 | A    | 20020423 | 200580   |
|                |      |          | IN 2003DN1727  | A    | 20031021 |          |

Priority Applications (No Type Date): US 2001840727 A 20010423; US 2000522277 A 20000309

Patent Details:

| Patent No   | Kind | Lan | Pg | Main IPC    | Filing Notes                     |
|---|------|-----|----|-------------|----------------------------------|
| US 20010044811  | A1   |     | 24 | G06F-015/00 | CIP of application US 2000522277 |
| WO 200286706  | A1   | E   |    | G06F-009/44 |                                  |
| Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW |      |     |    |             |                                  |
| Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW   |      |     |    |             |                                  |
| EP 1381945  | A1   | E   |    | G06F-009/44 | Based on patent WO 200286706     |
| Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR   |      |     |    |             |                                  |
| AU 2002257192   | A1   |     |    | G06F-009/44 | Based on patent WO 200286706     |
| MX 2003009712   | A1   |     |    | G06F-009/44 | Based on patent WO 200286706     |
| ZA 200308238  | A    |     | 77 | G06F-000/00 |                                  |
| BR 200209092  | A    |     |    | G06F-009/44 | Based on patent WO 200286706     |
| IN 200301727  | P1   | E   |    | G06F-017/60 |                                  |

Abstract (Basic): US 20010044811 A1

NOVELTY - A data model of the legacy computer system application is generated. The model is mapped to an extensible mark up language (XML) schema. The applications of the legacy system are automatically modified and are run so that data written in document object model is output in XML format.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (a) Data delivery system;
- (b) Data outputting system;
- (c) Data outputting method;
- (d) Legacy computer system modeling method;
- (e) Legacy computer system modeling system

USE - For outputting data from legacy computer system used in enterprise application integration (EAI), electronic bill presentation and payment (EBPP), archival of billing statements in business intelligence, etc.

ADVANTAGE - Direct generation of XML formatted data reduces friction in information networks, reduces cost of tracking information, reduces time associated with obtaining business intelligence. Customers can automatically analyze their suppliers for vendor relationship management, suppliers can automatically analyze their customers for customer relationship management and manufacturers can automatically analyze markets for their products for market intelligence by making data available in semantically meaningful form.

DESCRIPTION OF DRAWING(S) - The figure shows the flowchart of the generation of modified legacy program applications to output XML data.  
pp; 24 DwgNo 2/9

Title Terms: DATA; DELIVER; METHOD; COMPUTER; SYSTEM; APPLY; MODIFIED;  
APPLY; SYSTEM; RUN; MODIFIED; APPLY; SO; DATA; OUTPUT; EXTEND; MARK; UP;  
LANGUAGE; FORMAT

Derwent Class: T01; T05

International Patent Class (Main): G06F-000/00; G06F-009/44; G06F-015/00;  
G06F-017/60

File Segment: EPI

| Set | Items   | Description  |
|-----|---------|--|
| S1  | 3287751 | LEGACY OR LEGACIES OR COBOL OR ANTIQU???? OR OLD OR EXIST?-??  |
| S2  | 50600   | XML OR (EXTENSIBLE OR EXTENDED) () (MARKUP OR MODEL??? OR LANGUAGE? ?)   |
| S3  | 54652   | DOM? ? OR (DOCUMENT()OBJECT() (MODULE? ? OR MODEL??? OR MARK()UP? ?)) OR (TREE? ?(2N)OBJECT? ?) OR JDOM? ? OR OBJECT()ORIENTED()MODULE? ? OR XMLDOM? ?   |
| S4  | 2631    | XSLT? ? OR STYLESHEET? ? OR STYLE()SHEET? ? OR XSL()TRANSFORMATION? ?  |
| S5  | 948102  | (EDIT???? OR ALTER????? OR ADJUST???? OR CHANG???? OR TRANSFORM???? OR REFORMAT???? OR FORMAT???? OR READJUST???? OR ADAPT???? OR CUSTOMIZ???? OR CUSTOMIS???? OR MODIF??????? OR CONVERS??? OR CONVERT??? OR TRANSLAT???) (5N) (APPLICATION? ? - OR PROCEDURE?    |
| S6  | 12636   | ((PRINT??? OR WRIT??? OR WROTE OR OUTPUT???? OR TYPE OR TYPING OR TYPED OR DISPLAY??? OR SHOW??? OR (PROVIDE OR PROVIDING OR PROVIDED OR PROVISION) (2N) (RESULT? ? OR SOLUTION? ? OR ANSWER? ? OR RESPONSE? ?) OR PRESENT????? OR REPRESENT????? OR PRODUCE???? O |
| S7  | 8253    | ((PRINT??? OR WRIT??? OR WROTE OR OUTPUT???? OR TYPE OR TYPING OR TYPED OR DISPLAY??? OR SHOW??? OR (PROVIDE OR PROVIDING OR PROVIDED OR PROVISION) (2N) (RESULT? ? OR SOLUTION? ? OR ANSWER? ? OR RESPONSE? ?) OR PRESENT????? OR REPRESENT????? OR PRODUCE???? O |
| S8  | 768     | ((PRINT??? OR WRIT??? OR WROTE OR OUTPUT???? OR TYPE OR TYPING OR TYPED OR DISPLAY??? OR SHOW??? OR (PROVIDE OR PROVIDING OR PROVIDED OR PROVISION) (2N) (RESULT? ? OR SOLUTION? ? OR ANSWER? ? OR RESPONSE? ?) OR PRESENT????? OR REPRESENT????? OR PRODUCE???? O |
| S9  | 539     | S1 AND S5 AND (S6 OR S7 OR S8)   |
| S10 | 107     | S1 AND (S5(10N) (S6 OR S7 OR S8))  |
| S11 | 91      | RD (unique items)  |
| S12 | 20      | S11 AND (PY<2000 OR PD<19990309)   |
| S13 | 17      | (COBOL AND S5 AND (S6 OR S7 OR S8)) NOT S12  |
| S14 | 13      | RD (unique items)  |
| S15 | 0       | (CTG AND S1 AND (S2 OR S3 OR S4)) NOT (S12 OR S14)   |
| S16 | 0       | AU=((BALLANTYNE A? OR BALLANTYNE, A?) AND (SMITH, M? OR SMITH M?) AND (HINES, L? OR HINES L?))   |
| S17 | 3       | AU=(BALLANTYNE A? OR BALLANTYNE, A? AND SMITH, M? OR SMITH M? OR HINES, L? OR HINES L?) AND S1 AND (S2 OR S3 OR S4)  |

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File 2:INSPEC 1898-2006/Jun W2  
(c) 2006 Institution of Electrical Engineers

File 6:NTIS 1964-2006/Jun W2  
(c) 2006 NTIS, Intl Cpyrght All Rights Res

File 8:EI Compendex(R) 1970-2006/Jun W2  
(c) 2006 Elsevier Eng. Info. Inc.

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(c) 2006 CSA.

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File 94:JICST-EPlus 1985-2006/Mar W3

(c)2006 Japan Science and Tech Corp(JST)  
File 95:TEME-Technology & Management 1989-2006/Jun W2  
(c) 2006 FIZ TECHNIK  
File 99:Wilson Appl. Sci & Tech Abs 1983-2006/May  
(c) 2006 The HW Wilson Co.  
File 111:TGG Natl.Newspaper Index(SM) 1979-2006/Jun 08  
(c) 2006 The Gale Group  
File 144:Pascal 1973-2006/May W4  
(c) 2006 INIST/CNRS  
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec  
(c) 1998 Inst for Sci Info  
File 636:Gale Group Newsletter DB(TM) 1987-2006/Jun 16  
(c) 2006 The Gale Group  
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| 2261922   | ALTER??????   |
| 757479    | ADJUST????  |
| 5559038   | CHANG????   |
| 2047600   | TRANSFORM?????  |
| 18803     | REFORMAT????  |
| 3191845   | FORMAT????  |
| 10008     | READJUST????  |
| 1337109   | ADAPT?????  |
| 78112     | CUSTOMIZ????  |
| 20209     | CUSTOMIS?????   |
| 2350274   | MODIF???????  |
| 986640    | CONVERS???  |
| 864485    | CONVERT???  |
| 368316    | TRANSLAT???   |
| 6714036   | APPLICATION? ?  |
| 2148412   | PROCEDURE? ?  |
| 277690    | ROUTINE? ?  |
| 34103     | SUBROUTINE? ?   |
| 486537    | MODULE? ?   |
| 40310     | SCRIPT? ?   |
| 2208625   | SOFTWARE? ?   |
| 533033    | SOFT  |
| 56175     | WARE? ?   |
| 1264      | SOFT(W)WARE? ?  |
| 3079285   | PROGRAM? ?  |
| 15138     | EXECUTABLE? ?   |
| 1138016   | CODE? ?   |
| 5473206   | FUNCTION? ?   |
| 829689    | TASK? ?   |
| S5 948102 | (EDIT???? OR ALTER?????? OR ADJUST???? OR CHANG???? OR<br>TRANSFORM????? OR REFORMAT???? OR FORMAT???? OR<br>READJUST???? OR ADAPT????? OR CUSTOMIZ???? OR<br>CUSTOMIS????? OR MODIF??????? OR CONVERS??? |
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|           | SOFTWARE? ? OR SOFT()WARE? ? OR PROGRAM? ? OR EXECUTABLE?   |
|           | ? OR CODE? ? OR FUNCTION? ? OR TASK? ?)   |

552779 PRINT???  
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 64441 WROTE  
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 54785 TYPING  
 23852 TYPED  
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 10896276 SHOW???  
 2702269 PROVIDE  
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 1831865 PROVIDED  
 183158 PROVISION  
 13686007 RESULT? ?  
 4549357 SOLUTION? ?  
 279569 ANSWER? ?  
 3573655 RESPONSE? ?  
 247058 (((PROVIDE OR PROVIDING) OR PROVIDED) OR  
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 10081470 PRESENT?????  
 2548653 REPRESENT?????  
 9771817 PRODUC????  
 174510 RENDER????  
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 1443189 VIEW???  
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 S8 768 ((PRINT??? OR WRIT??? OR WROTE OR OUTPUT???? OR TYPE OR  
 TYPING OR TYPED OR DISPLAY??? OR SHOW??? OR (PROVIDE OR  
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 OR VIEW???) (10N) S4



| Set | Items  | Description   |
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| S1  | 350992 | LEGACY OR LEGACIES OR COBOL OR ANTIQU???? OR OLD OR EXIST?-??   |
| S2  | 4382   | XML OR (EXTENSIBLE OR EXTENDED) () (MARKUP OR MODEL??? OR LANGUAGE? ?)  |
| S3  | 21153  | DOM? ? OR (DOCUMENT()OBJECT() (MODULE? ? OR MODEL??? OR MARK()UP? ?)) OR (TREE? ?(2N)OBJECT? ?) OR JDOM? ? OR OBJECT()ORIENTED()MODULE? ? OR XMLDOM? ?  |
| S4  | 478    | XSLT? ? OR STYLESHEET? ? OR STYLE()SHEET? ? OR XSL()TRANSFORMATION? ?   |
| S5  | 210180 | (EDIT???? OR ALTER????? OR ADJUST???? OR CHANG???? OR TRANSFORM???? OR REFORMAT???? OR FORMAT???? OR READJUST???? OR ADAPT???? OR CUSTOMIZ???? OR CUSTOMIS???? OR MODIF????? OR CONVERS??? OR CONVERT??? OR TRANSLAT???) (5N) (APPLICATION? ? - OR PROCEDURE?     |
| S6  | 1495   | ((PRINT??? OR WRIT??? OR WROTE OR OUTPUT???? OR TYPE OR TYPING OR TYPED OR DISPLAY??? OR SHOW??? OR (PROVIDE OR PROVIDING OR PROVIDED OR PROVISION) (2N) (RESULT? ? OR SOLUTION? ? OR ANSWER? ? OR RESPONSE? ?) OR PRESENT????? OR REPRESENT????? OR PRODUC???? O |
| S7  | 2733   | ((PRINT??? OR WRIT??? OR WROTE OR OUTPUT???? OR TYPE OR TYPING OR TYPED OR DISPLAY??? OR SHOW??? OR (PROVIDE OR PROVIDING OR PROVIDED OR PROVISION) (2N) (RESULT? ? OR SOLUTION? ? OR ANSWER? ? OR RESPONSE? ?) OR PRESENT????? OR REPRESENT????? OR PRODUC???? O |
| S8  | 233    | ((PRINT??? OR WRIT??? OR WROTE OR OUTPUT???? OR TYPE OR TYPING OR TYPED OR DISPLAY??? OR SHOW??? OR (PROVIDE OR PROVIDING OR PROVIDED OR PROVISION) (2N) (RESULT? ? OR SOLUTION? ? OR ANSWER? ? OR RESPONSE? ?) OR PRESENT????? OR REPRESENT????? OR PRODUC???? O |
| S9  | 27     | S1 AND S5 AND (S6 OR S7 OR S8)  |
| S10 | 0      | S9 NOT (AD=(19990309:20020309) OR AD=(20020310:20050310) OR AD=(20050310:20060619))   |
| S11 | 51     | (S1 AND S5 AND (S2 OR S3 OR S4)) NOT S9   |
| S12 | 3      | S11 NOT (AD=(19990309:20020309) OR AD=(20020310:20050310) - OR AD=(20050310:20060619))  |
| S13 | 4      | (AU=((BALLANTYNE A? OR BALLANTYNE, A?) AND (SMITH, M? OR SMITH M?) AND (HINES, L? OR HINES, L?))) NOT S12   |
| S14 | 1      | (AU=(BALLANTYNE A? OR BALLANTYNE, A? AND SMITH, M? OR SMITH M? OR HINES, L? OR HINES L?) AND S1 AND (S2 OR S3 OR S4)) NOT S13   |
| S15 | 32     | (COBOL AND S5 AND (IC=(G06F-015/00 OR G06F-009/44 OR G06F-000/00 OR G06F-017/60) OR MC=T01 OR MC=T05)) NOT S12:S14  |
| S16 | 18     | S15 NOT (AD=(19990309:20020309) OR AD=(20020310:20050310) - OR AD=(20050310:20060619))  |

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File 347:JAPIO Dec 1976-2005/Dec(Updated 060404)

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File 350:Derwent WPIX 1963-2006/UD,UM &UP=200638

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62278 EDIT????  
 486720 ALTER??????  
 1168343 ADJUST????  
 1415540 CHANG????  
 366498 TRANSFORM?????  
 4769 REFORMAT????  
 706520 FORMAT????  
 4631 READJUST????  
 399179 ADAPT?????  
 9357 CUSTOMIZ????  
 4021 CUSTOMIS?????  
 360008 MODIF??????  
 352542 CONVERS???  
 956291 CONVERT???  
 53323 TRANSLAT???  
 929703 APPLICATION? ?  
 225114 PROCEDURE? ?  
 24807 ROUTINE? ?  
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 27468 TASK? ?  
 S5 210180 (EDIT???? OR ALTER?????? OR ADJUST???? OR CHANG???? OR  
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988416 PRINT???  
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 121 WROTE  
 2322078 OUTPUT????  
 1870596 TYPE  
 6733 TYPING  
 2958 TYPED  
 1265215 DISPLAY???  
 4082863 SHOW???  
 2656874 PROVIDE  
 1329699 PROVIDING  
 4056456 PROVIDED  
 121377 PROVISION  
 957777 RESULT? ?  
 3215567 SOLUTION? ?  
 27053 ANSWER? ?  
 488902 RESPONSE? ?  
 40454 (((PROVIDE OR PROVIDING) OR PROVIDED) OR  
 PROVISION) (2N) (((RESULT? ? OR SOLUTION? ?) OR ANSWER? ?)  
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 554375 PRESENT?????  
 429217 REPRESENT?????  
 3409412 PRODUC????  
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988416 PRINT???  
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 3215567 SOLUTION? ?  
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 1870596 TYPE  
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 27053 ANSWER? ?  
 488902 RESPONSE? ?  
 40454 (((PROVIDE OR PROVIDING) OR PROVIDED) OR  
 PROVISION) (2N) (((RESULT? ? OR SOLUTION? ?) OR ANSWER? ?)  
 OR RESPONSE? ?)  
 554375 PRESENT?????  
 429217 REPRESENT?????  
 3409412 PRODUC????  
 56620 RENDER????  
 380469 YIELD???  
 1926721 VIEW???  
 478 S4  
 S8 . 233 ((PRINT??? OR WRIT??? OR WROTE OR OUTPUT???? OR TYPE OR  
 TYPING OR TYPED OR DISPLAY??? OR SHOW??? OR (PROVIDE OR  
 PROVIDING OR PROVIDED OR PROVISION) (2N) (RESULT? ? OR  
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 OR REPRESENT???? OR PRODUC???? OR RENDER???? OR YIELD???  
 OR VIEW???)) (10N) S4